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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/019,286

01/02/2002

Kenji Sasaki

P21827

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06/20/2003

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

NGUYEN, TRAN N

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,286

Applicant(s)

SASAKI ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 5-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-4 and 27-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restriction

2. Applicant's election of claims 1-4, and 27-29, filed 4/21/03, is acknowledged. The applicant makes the election with traverse giving the following reasons:

Applicants argue that the claims are all closely related and directed to a synchronous motor. Applicants further note that, although the various claims recite different components, this alone is an inadequate basis to render the species defined by the claims appropriate for restriction. Additionally, the overwhelming majority of the search fields for the identified groups appear to be cc-extensive.

Although there may be specific search areas that are required for particular claims that are not required for the others, this alone is believed to be inadequate and thus inappropriate basis for requiring restriction.

Moreover, the restriction requirement set forth by the Examiner omits one of the two criteria for a proper restriction requirement now established by the U.S. Patent and Trademark Office policy. As set forth in M.P.E.P. j 803, appropriate explanation" must be set forth by the Examiner as to the existence of a serious burden" if the restriction requirement were not required. By virtue of the Examiner's requirement and since the claims of the various species are so closely related and are all directed to a synchronous motor, it is submitted that there is no serious burden on the Examiner in examining all these claims

According to the MPEP's § 1.146 Election of species.

"In the first action on an application containing a generic claim to a generic invention

(genus) and *claims to more than one patentably distinct species embraced thereby, the examiner may require the applicant in the reply to that action to elect a species of his or her invention to which his or her claim will be restricted* if no claim to the genus is found to be allowable. However, *if such application contains claims directed to more than a reasonable number of species, the examiner may require restriction of the claims to not more than a reasonable number of species before taking further action in the application.* [43 FR 20465, May 11, 1978; revised, 62 FR 53131, Oct. 10, 1997, effective Dec. 1, 1997]

Thus, in response to these argument, even though the claims are related but they represent different embodiments of different designed species. As the applicant stated "*there may be specific search areas that are required for particular claims that are not required for the others*" this is factually correct. Thus, the applicant literally admits that there are specific search areas are required for a group of claims of one of the embodiments, such search areas for this embodiment are not required for another group of claims of another embodiment. Evidently, there are total of 6 (six) foreign applications have been submitted for foreign priority claimed for this single present applications. The six foreign applications contain number of species that are consolidated in this present applications with various species of embodiments.

To conclude, the present application contains a number, more than 2, of various species of embodiments, which require serious burden on the Examiner to in examining all the claims because *there are specific search areas that are required for particular claims that are not required for the others.* Furthermore, *there are at least 10 independent claims for these embodiment species that require different search areas and different considerations.* This is an additional proof that the application contains more than one patentably distinct species. Therefore, the election/restriction is made FINAL.

Claim Rejections - 35 USC § 112

3. Claims 1-4 and 27-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, “the neighboring members” lacks antecedent basis.

In claims 1-4, and 27-29, the recited “adjacent one end of rotor magnetic poles” and “a center point of the rotor magnetic poles” is indefinite, because the claim does not clearly define *what portion is so-called adjacent one end and what portion is so-called center point of rotor magnetic poles* (the term “poles” is written in plural form).

In other words, the rotor is shown, by figs 1-5, having four magnets bars forming two pairs, each pair having two magnet bars.

The two magnet bars being arranged so that two respective ends of the two magnet bars are closely placed together in contact is the so-called “center point of the magnetic poles”

And, *the other two respective ends of the two magnet bars are arranged adjacent to the larger slot and close to the respective two ends of the other pair of magnet bars* is the so-called “adjacent one end of the rotor magnetic poles”

In light of the spec., that above Examiner’s understanding is read as “adjacent one end of rotor magnetic poles” and “a center point of the rotor magnetic poles” in the claim.

In claim 2, “the slot interval at a location spaced from the center paint of the rotor magnetic poles in a direction conforming to a direction of rotation of the motor is chosen to be greater than the slot internal at a location spaced from the center point of the rotor magnetic poles in a direction counter to the direction of rotation of the rotor” is indefinite because as the rotor rotates a complete 360 degrees (or a complete revolution) the so-called “slot internal at a location spaced from the center point of the rotor magnetic poles in a direction counter to the direction of rotation of the rotor” would eventually be in the rotation direction instead of counter-rotation direction.

In light of the spec (page 29), the above recitation is understood as “*the slot interval at a location spaced from the center point of the rotor magnetic poles in a direction conforming*

to a direction of rotation of the motor is chosen to be greater than the slot internal at a location spaced from the center point of the rotor magnetic poles in an opposite direction with respect to the direction of rotation of the rotor"

In claim 3, "said slots having a radial length that is smaller at a center point of the rotor magnetic poles" is indefinite because it is unclear the slots having a radial length that is smaller than what? In light of spec, it is understood that *slots having a radial length that is smaller at a center point of the rotor magnetic poles than that at the adjacent ends of the rotor poles.*

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 3 is rejected under 35 U.S.C. 102(b) as being fully anticipated Lloyd (US 4845837).

Lloyd discloses a asynchronous motor (figs 1-5) comprising:
a stator (15) including a stator iron core having a winding wound thereabouts,
said stator iron core having an inner cylindrical surface, a rotor (31) including a rotor iron core and rotatable accommodated while facing the inner cylindrical surface of the stator iron core,
said rotor including a plurality of inductor bars (29) accommodated within corresponding slot (25) defined in an outer peripheral portion of the rotor iron core, said inductor bars having their opposite ends short circuited by respective circuit rings to form a squirrel cage conductor,
said rotor having a plurality of magnet retaining slots embedded therein; permanent magnets (21) embedded within the magnet retaining holes in the rotor and defining rotor magnetic poles;
said slots (25) having a radial length that is smaller at a center point of the rotor magnetic poles;
and distance between one of the slots (37) positioned adjacent one end of the rotor magnetic

pokes and the magnet retaining holes being smaller than a distance between the slots positioned at other locations of the rotor and the magnet retaining holes.

Allowable Subject Matter

Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 2, 4, and 27-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

As mentioned above,

In claims 1-4, and 27-29, in light of the spec, the so-called "center point of the magnetic poles" is understood as *the two magnet bars being arranged so that two respective ends of the two magnet bars are closely placed together and are in contact.*

And the so-called "adjacent one end of the rotor magnetic poles" is understood as *the other two respective ends of the two magnet bars are arranged adjacent to the larger slot and close to the respective two ends of the other pair of magnet bars*

In claim 2, "the slot interval at a location spaced from the center point of the rotor magnetic poles in a direction conforming to a direction of rotation of the motor is chosen to be greater than the slot interval at a location spaced from the center point of the rotor magnetic poles in a direction counter to the direction of rotation of the rotor is understood as *"the slot interval at a location spaced from the center point of the rotor magnetic poles in a direction conforming to a direction of rotation of the motor is chosen to be greater than the slot interval at a location spaced from the center point of the rotor magnetic poles in an opposite direction with respect to the direction of rotation of the rotor"*

In claim 3, "said slots having a radial length that is smaller at a center point of the rotor magnetic poles" is understood that *slots having a radial length that is smaller at a center point of the rotor magnetic poles than that at the adjacent ends of the rotor poles.*

The indication of allowable subject matters are based on these understanding of the recitations.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N Nguyen whose telephone number is (703) 308-1639. The examiner can normally be reached on M-F 6:00AM-2:30PM.

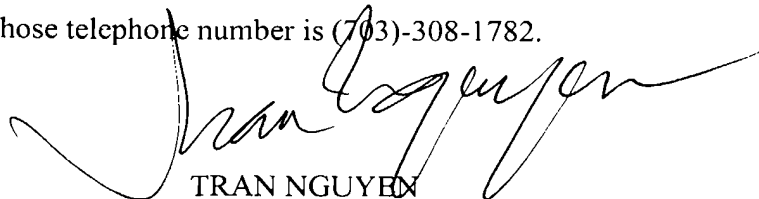
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703)-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3431 for regular communications and (703)-395-3432 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

A handwritten signature in black ink, appearing to read 'Tran Nguyen', is written over the printed name.

TRAN NGUYEN

PRIMARY PATENT EXAMINER

TC-2800